IN THE CLAIMS

Please amend the claims as follows.

1. (Currently Amended) A power converter comprising:

a shared first-side stage to receive an input;

a plurality of second-side ~~converter~~ stages coupled to the first-side stage, each of second-side ~~converter~~ stages to generate an output;

control circuitry to separately monitor the outputs of the second-side ~~converter~~ stages and generate a control signal for each output, wherein the control signal turns off switching elements of a corresponding one of the second-side ~~converter~~ stage to regulate the output; and

steering ~~circuitry~~ diodes in series with ~~coupling~~ switching elements of the first-side stage coupling the switching elements of the first-side stage to switching elements of the second-side ~~converter~~ stages to allow forward bias current to flow from the switching elements of the first-side stage to the switching elements of the second-side ~~converter~~ stages and to inhibit current from flowing in a reverse bias direction between the switching elements of the second-side ~~converter~~ stages when a switching element of one of the second-side ~~converter~~ stages is turned off before a switching element of one of the other second-side ~~converter~~ stages; and

a switching signal generator comprising a plurality of sets of transforming windings,

wherein switching signals for switching on and off each of the switching elements of the first-side stage are each provided by separate windings of the sets of transforming windings, and

wherein center tap windings of the sets of transforming windings provides a switching signal for switching on and off one of the switching elements of the second-side stages.

2. (Currently Amended) The power converter of claim 1 further comprising:

~~a switching signal generator to generate a switching signal for switching on and off the switching elements of the first-side stage, and switching on and off the switching elements of the plurality of second-side converter stages; and~~

a plurality of second-side driver circuits, each to provide one of the second-side ~~converter~~ stages with a combined signal corresponding with the switching signal and one of the control

signals, the second-side driver circuit turning off switching elements of the second-side stages in response to the one control signal,

~~wherein the steering circuitry comprises steering diodes~~ and

wherein the center tap winding further provides power to driver elements of the second-side driver circuits.

3. (Currently Amended) The power converter of claim 2 wherein the second-side ~~converter~~ stages each comprise a transformer and a set of second-side switching elements which are alternatively turned on and off in response to the switching signal from a corresponding second-side driver circuit, the second-side switching elements being turned off based on the control signal to regulate the output.

4. (Previously Presented) The power converter of claim 3 wherein the switching signal has a duty cycle of up to 50%, and the combined signal has a duty cycle of less than the duty cycle of the switching signal,

wherein the duty cycle of the combined signal being controlled by the control signal.

5. (Previously Presented) The power converter of claim 2 wherein the first-side stage comprises first and second switching elements which are alternatively switched on and off, and wherein the plurality of second-side stages comprise a first and a second second-side stage, the first second-side stage comprising third and fourth switching elements which are alternatively switched on and off, the second second-side stage comprising fifth and sixth switching elements which are alternatively switched on and off.

6. (Previously Presented) The power converter of claim 5, wherein the switching signal turns on the first, third and fifth switching elements at substantially the same time,

wherein the combined signal associated with the first second-side stage turns off the third switching element before the switching signal turns off the first switching element, and

wherein the combined signal associated with the second second-side stage turns off the fifth switching element before the switching signal turns off the first switching element.

7. (Cancelled)

8. (Currently Amended) The power converter of claim 1 ~~wherein each of the second-side converter stages comprise a transformer, and~~ wherein the power converter further ~~comprising:~~ comprises a freewheeling diodes associated with each switching element of the first-side stage, the freewheeling diodes coupling the input side of each of the transformers to an input ~~the switching elements~~ of the first-side stage to allow inductive leakage current to flow from the transformers when ~~an~~ the associated switching element is turned off,

wherein the steering diodes and an associated one of the switching elements of the first-side stage are coupled in series, and

wherein the freewheeling diodes are coupled in parallel to the series coupling of the steering diodes and associated switching elements of the first-side stage.

9. (Currently Amended) The power converter of claim 1 wherein the shared first-side stage is a high-side stage to receive an input voltage that is greater than an output voltage, and the plurality of second-side stages are low-side stages.

10. (Currently Amended) The power converter of claim 1 wherein the shared first-side stage is a low-side stage to receive an input voltage that is lower than an output voltage, and

wherein the plurality of second-side stages are high-side stages.

11. (Cancelled)

12. (Currently Amended) A power converter comprising:

a single set of high-side switching elements;

a plurality of sets of low-side switching elements coupled to the high-side switching elements;

control circuits to turn off the low-side switching elements of at least one of the sets before the high-side switching elements to regulate an output; ~~and~~

steering diodes in series with the high-side switching elements and coupling the low-side switching elements with the high-side switching elements, the steering diodes allowing forward bias current to flow from the high-side switching elements to the low-side switching elements, the steering diodes inhibiting current in a reverse bias direction from flowing between the sets of low-side switching elements; and

a switching signal generator comprising a plurality of sets of transforming windings,

wherein switching signals for switching on and off each of the high-side switching elements are each provided by separate windings of the sets of transforming windings, and

wherein center tap windings of the sets of transforming windings provides a switching signal for switching on and off one of the low-side switching elements.

13. (Currently Amended) The power converter of claim 12 wherein each switching element of the low-side sets has a corresponding one of the steering diodes, and

wherein the center tap winding further provide power to driver elements of the second-side driver circuits.

14. (Currently Amended) The power converter of claim 12 further comprising:

a freewheeling diode associated with each switching element of the low-side sets, the freewheeling diodes allowing leakage current to flow from one of a plurality of transformers to the input when the associated switch it turned off,

wherein the steering diodes and an associated one of the high-side switching elements are coupled in series, and

wherein the freewheeling diodes are coupled in parallel to the series coupling of the steering diodes and associated high-side switching elements.

15. (Currently Amended) The power converter of claim 12 wherein an input current is split between the sets of the low-side switching elements after flowing through one of the high-side switching elements, the split based on output loading of the sets of the low-side switching elements.

16. (Currently Amended) The power converter of claim 12 further comprising:

~~a switching signal generator to generate switching signals for the high-side and low-side switching elements;~~

a plurality of low-side control circuits each associated with one of the sets of low-side switching elements, each low-side control circuit to monitor one of a plurality of outputs and to generate a control signal to change a duty-cycle of the low-side switching elements of the associated set.

17. (Currently Amended) The power converter of claim 16 further comprising [[:]] a low-side driver circuit for each set of the low-side switching elements, the low-side driver circuits to provide switching signals to the low-side switching elements based on the switching signals from the switching signal generator and one of the control signals,

wherein low-side driver circuit, based on the control signal from the associated control circuit, changes the duty cycle of the switching signal provided by the low-side driver circuit to the low-side switching elements to regulate an associated output.

18. (Previously Presented) The power converter of claim 17 wherein when a first switch of a first set of low-side switching elements is turned off before a second switch of a second set of low-side switching elements, a steering diode associated with the first switch inhibits current from flowing from a transformer associated with the first set of low-side switching elements to a transformer associated with the second set of low-side switching elements.

19. (Previously Presented) The power converter of claim 17 further comprising an optical coupler to electrically isolate the low-side control circuit from the low-side driver circuitry.

20. (Previously Presented) The power converter of claim 12 further comprising a plurality of transformers, each transformer associated with one of the sets of the low-side switching elements to generate one of a plurality of outputs.

Claims 21 - 23 (Cancelled)